REMARKS

By this amendment, Claims 1, 12, 13, 14, 25, and 26 have been amended. Claims 11 and 24 are cancelled herein. Hence, Claims 1-9, 12-22, and 25-26 are pending in this application.

Claim Rejection – 35 U.S.C. § 103(a)

Claims 1-26 were rejected under 35 U.S.C. § 103(a) as allegedly being anticipated by U.S. Publication No. 2002/0178254 by Brittenham et al. ("*Brittenham*") in view of U.S. Patent No. 5,574,782 by Baird et al. ("*Baird*"). Claims 1, 12, 13, 14, 25, and 26 have been amended herein to clarify (a) the meaning of a service, and (b) how a service is used.

Even if the cited art were to be properly combined, each of the pending claims recites at least one element that is not disclosed, taught, or suggested by the cited art, either individually or in combination. Further, as explained below, *Brittenham* and *Baird* have not been properly combined. Consequently, the rejection of the pending claims based on an improper combination of references may not be maintained.

Independent Claim 1

With regard to independent Claim 1, there is recited:

> In a process comprising at least one activity, a computer implemented method for performing an activity, comprising:
>   receiving a message, from a process management engine, to perform an activity which calls for invocation of a service provided by a service application, said service being invocable using a protocol, and said service, when invoked, provides one or more results of performing said service;
>   obtaining a service definition for said service, wherein the service definition comprises mapping information that maps one or more attributes associated with said activity to one or more parameters used by said service;
>   executing a set of logic which implements said protocol to generate a service invocation, wherein said service invocation is generated based upon, at

least a portion of, said mapping information in the service definition, and is in compliance with said protocol;

sending said service invocation to said service application to invoke said service;

receiving a reply from said service application which comprises said one or more results; and

providing at least a portion of said one or more results to said process management engine to complete performance of said activity (emphasis added).

At least the above-underlined portions of Claim 1 are not disclosed, taught, or suggested by the cited art.

Claim 1 provides an advantageous method for performing an activity. According to Claim 1, a message to perform an activity that calls for the invocation of a service is received from a process management engine. The service, when invoked, provides one or more results of performing the service. A service definition for the service is obtained. The service definition comprises mapping information that maps one or more attributes associated with the activity to one or more parameters used by the service. A service invocation is generated based upon at least a portion of the mapping information in the service definition. The generated service invocation is sent to a service application to invoke the service. A reply, from the service application, which comprises the one or more results of performing the service, is received. At least a portion of the one or more results is provided to the process management engine to complete the performance of the activity.

By encapsulating the logic that maps one or more attributes associated with the activity to one or more parameters used by the service in the mapping information, when the requirements of the service change, the mapping information may be updated to reflect the requirements of the changed service without developing new code to support the invocation of the changed service. In this way, substantial time and effort for developing new code to support the changed service is

avoided. Further, since the information contained in the service definition is fairly basic, in terms of substance and technical complexity, the service definition may be created by a relatively low-skilled end user, rather than a highly skilled technical specialist.

The combination of elements recited in Claim 1 is neither disclosed nor suggested by *Brittenham*. Significantly, while both the pending claims and the *Brittenham* reference describe an approach using the term "service definition," the meaning ascribed to the term in each case is markedly different. Claim 1 features the element of "obtaining a service definition for said service, wherein the service definition comprises mapping information that maps one or more attributes associated with said activity to one or more parameters used by said service." In sharp contrast, *Brittenham* ascribes a different meaning to the term "service definition." The single occurrence of the term "service definition" within *Brittenham* states: "[a]ccording to preferred embodiments of the present invention, the resolved service definition will contain end point information which references the URL of deployment node 260 (thereby causing client 210 to send its subsequent request to the DN)" (paragraph 48). This portion, and the surrounding description, uses the term "service definition" to refer to the information sent to a requesting client to identify where a service may be located. Thus, a service definition, as used by *Brittenham*, does not comprise any mapping information that maps one or more attributes associated with an activity to one or more parameters used by a service.

The Office Action acknowledges that *Brittenham* "does not explicitly state a service definition that maps attributes and parameters," and instead, relies upon *Baird* to show the element of "obtaining a service definition" featured in Claim 1.

Baird is discloses an approach for ensuring that a SCP node, which provides the processing logic and stores the subscriber provided data that defines how incoming call requests

are handled in a telecommunication network, is not taken out of service when receiving

messages in formats not previously defined as well as changing the subscriber provided data (See

Col. 5, lines 21-37; Abstract).

To the extent that *Baird* discusses a service, the service to which *Baird* refers to is the

telephone service. However, providing telephone service is very different than invoking a

service provided by a service application. When a service, provided by a service application, is

invoked, there is an expectation that one or more results of performing the service will be

provided by the service application. There is no such expectation in the teaching of *Baird*. For

example, *Baird* teaches (at Col. 1, lines 58-60) that the SCP node "provides the intelligence

which provides the processing logic and stores the subscriber provided data which defines how

incoming call requests are to be handled." Thus, the message of Col. 8, lines 17-21 of *Baird* may

be used to instruct the SCP node how to handle incoming call requests, but this message does not

invoke a service, provided by a service application, which results in obtaining one or more

results of performing the service.

Claim 1 has been amended to more clearly identify that, in addition to being provided by

a service application, the service of Claim 1, when invoked, provides one or more results of

performing said service. Further, Claim 1 has been amended to recite the additional elements of

"receiving a reply from said service application which comprises said one or more results" and

"providing at least a portion of said one or more results to said process management engine to

complete performance of said activity" to further clarify to processing of the one or more results

provided by the service application after the service is invoked.

As a result of the fundamental distinction between the meaning of "service" as used by

Baird and the express limitations featured in Claim 1, numerous elements of Claim 1 are not

disclosed, taught, or suggested by *Baird*. For example, *Baird* fails to disclose, teach, or suggest the element of "receiving a message, from a process management engine, to perform an activity which calls for invocation of a service provided by a service application, said service being invokable using a protocol, and said service, when invoked, provides one or more results of performing said service" featured in Claim 1. Instead, *Baird* is directed towards providing telephone service. As a result, to the extent that *Baird* discusses a service, the service is not provided by a service application, and the service, when invoked, does not provide one or more results of performing the service.

Consequently, *Baird* cannot disclose, teach, or suggest the element of "obtaining a service definition for said service, wherein the service definition comprises mapping information that maps one or more attributes associated with said activity to one or more parameters used by said service" featured in Claim 1, since *Baird* fails to disclose, teach, or suggest a service as claimed. For example, the portion of *Baird* cited to show this element (Col. 7, lines 35-47; Col. 8, lines 11-24) describes an instruction to a SCP node to alter how the SCP nodes handles incoming call requests. However, this portion does not describe or suggest a service definition for a service, provided by a service application, that when invoked, provides one or more results of performing the service.

Further, no portion of either *Brittenham or Baird* discloses, teaches, or suggests the element of "providing at least a portion of said one or more results to said process management engine to complete performance of said activity" featured in Claim 1. *Brittenham* is cited to show this element (at page 6, paragraphs 56-57), however, this portion merely describes deploying the service at the clients POP 240, and thereafter, returning a successful return code to the deployment node 260.

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Significantly, while the Office Action asserts that the deployment node of *Brittenham* is analogous to the process management engine, the deployment node of *Brittenham* cannot be analogous to a process management engine as featured in Claim 1 because it is the service requestor 210, not the deployment node 260, that requests the service of *Brittenham* (See paragraph 47). Claim 1 requires that the process management engine send a message to perform an activity which calls for invocation of a service provided by a service application. In sharp contrast, the deployment node of *Brittenham* performs no actions that are analogous to sending a message to perform an activity that calls for invocation of a service provided by a service application. Consequently, the element of "providing at least a portion of said one or more results to said process management engine to complete performance of said activity" featured in Claim 1 is not disclosed, taught, or suggested by *Brittenham*.

As at least one element of Claim 1 is not disclosed, taught, or suggest by the cited art, either individually or in combination, it is respectfully submitted that Claim 1 is patentable over the cited art and is in condition for allowance.

Additionally, the cited references have not been properly combined. The Office Action states:

> The Baird reference further teaches the invention provides services without service disruption (Baird: col. 1, lines 57-65; col. 3, lines 27-65). Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create a computer implemented method for performing an activity as taught by Baird in order to provide a service without disruption (Baird: col. 1, lines 57-65; col. 3, lines 27-65).

However, notwithstanding the fact that neither *Brittenham* nor *Baird* disclose numerous claim elements, the Applicant respectfully submits that there is nothing in either *Brittenham* or *Baird* that teaches or suggests combining their respective teachings.

As stated in the Federal Circuit decision *In re Dembiczak*, 50 USPQ.2d 1617

(Fed. Cir. 1999), (citing *Gore v. Garlock*, 220 USPQ 303, 313 (Fed. Cir. 1983)), "it is very easy

to fall victim to the insidious effect of the hindsight syndrome where that which only the inventor

taught is used against its teacher." *Id*. The Federal Circuit stated in *Dembiczak* "that the best

defense against subtle but powerful attraction of a hindsight-based obviousness analysis is

rigorous application of the requirement for a showing of the teaching or suggestion to combine

prior art references." *Id*. Thus, the Federal Circuit explains that a proper obviousness analysis

requires "*particular factual findings* regarding the locus of the suggestion, teaching, or

motivation to combine prior art references." *Id*. (emphasis added).

In particular, the Federal Circuit states:

> "We have noted that evidence of a suggestion, teaching, or motivation to
> combine may flow from the prior art references themselves, the knowledge of
> one of ordinary skill in the art, or, in some cases, from the nature of the
> problem to be solved...although 'the suggestion more often comes from the
> teachings of the pertinent references'...The range of sources available,
> however, does *not diminish the requirement for actual evidence*. That is, the
> *showing must be clear and particular*...Broad conclusory statements
> regarding the teaching of multiple references, standing alone, are not
> 'evidence.'" *Id*. (emphasis added; internal citations omitted).

Neither *Brittenham* nor *Baird* show any suggestion, teaching, or motivation to combine

their teachings, nor does the Office Action provide a "clear and particular" showing of the

suggestion, teaching, or motivation to combine their teachings. While the Office Action alleges

that *Baird* teaches a motivation (Col. 1, lines 57-65; Col. 3, lines 27-65), this portion merely

discloses a motivation for not disrupting a telephone service when the operation of a SCP node is

updated. This teaching in no way provides any explanation as to why the apporach of *Baird*

should be combined with the approach of *Brittenham*. In fact, the only motivation provided in

the Office Action is the hindsight observation that by combining features of those references, one

may achieve the benefits achieved from the invention as described and claimed in the

application. It is respectfully submitted that such a hindsight observation is not consistent with the Federal Circuit's requirement for "particular factual findings."

Further, *Brittenham* and *Baird* are directed towards sharply contrasting subject matter, namely a web services network and a telecommunication network respectively. As a result, it is unclear and left unanswered by the references and the Office Action as to how the diverse technologies of the references could possibly be combined.

Importantly, if *Brittenham* were to be combined with *Baird*, then a principle of operation of *Baird* would be changed. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). See also MPEP § 2143.02

In the present case, a fundamental principle of operation under which the approach of *Baird* operates involves ensuring that a single node remains operational at all times. Specifically, *Baird* is directed towards ensuring that the SCP node, which provides the processing logic and stores the subscriber provided data that defines how incoming call requests are handled in a telecommunication network, is not taken out of service (See Col. 5, lines 21-37; Abstract).

On the other hand, the feature of *Brittenham*, which is suggested by the Office Action to be combined with the approach of *Baird*, is designed to facilitate the "dynamic deployment of web services to locations in the network in order to improve efficiency" (Abstract). In the approach of *Brittenham*, the web services are temporarily unavailable while they are being moved from one location to another within a network. If the suggestion of *Brittenham,* namely the dynamic deployment of a web service, were to be implemented in the approach of *Baird,*

then the tenant of *Baird* that the SCP node remain operational at all times would be eviscerated. As a result, a fundamental principle of operation of *Baird* would be changed.

Consequently, assuming, *arguendo*, that *Brittenham* and *Baird* were to be properly combined, the resulting combination would fail to disclose, teach, or suggest at least one element of Claim 1. Moreover, as explained above, it is respectfully submitted that *Brittenham* and *Baird* have not been properly combined. For example, a principle of operation of *Baird* would be changed upon combing *Baird* with *Brittenham*. Because *Brittenham* and *Baird* have not been properly combined, the rejection of the pending claims made on the improper combination may not be maintained. As a result, Claim 1 is patentable over the cited art and is in condition for allowance.

Independent Claim 12 is patentable over the cited art

With regard to independent Claim 12, there is recited:

> A computer implemented method for performing one or more activities, comprising:
> receiving, from a process management engine, a first message to perform a first activity which calls for invocation of a first service provided by a first service application, wherein said first service, when invoked, provides a first set of one or more results of performing said first service;
> obtaining a service definition for said first service, wherein the service definition comprises mapping information that maps one or more attributes associated with said activity to one or more parameters used by said service, and wherein said service definition for said first service comprising an indication that a first protocol is to be used to invoke said first service;
> selecting a first set of logic based upon said indication in said service definition for said first service, said first set of logic implementing said first protocol;
> executing said first set of logic to generate a first service invocation, wherein said first service invocation is generated based upon, at least a portion of, said mapping information in the service definition for said first service, and is in compliance with said first protocol;
> sending said first service invocation to said first service application to invoke said first service; and

receiving a reply from said first service application which comprises said first set of one or more results; and

      <u>providing at least a portion of said first set of one or more results to said process management engine to complete performance of said first activity</u> (emphasis added)

At least the above-underlined portions of Claim 1 are not disclosed, taught, or suggested by the cited art.

As explained above with respect to Claim 1, neither *Brittenham* nor *Baird* discloses, teaches, or suggests the element of obtaining a service definition. Further, as explained above with respect to Claim 1, neither *Brittenham* nor *Baird* discloses, teaches, or suggests the element of "<u>providing at least a portion of said first set of one or more results to said process management engine to complete performance of said first activity</u>" featured in Claim 12. Thus, Claim 12 is patentable over the cited art, and is in condition for allowance.

Claims 2-9, 13-22, and 25-26

Independent Claim 14 contains features similar to that discussed above with reference to Claim 1, except that Claim 14 is recited in computer-readable medium format. Consequently, it is respectfully submitted that for at least the reasons given above with respect to Claim 1, that Claim 14 is patentable over *Brittenham* and is in condition for allowance.

Independent Claim 25 contains features similar to that discussed above with reference to Claim 12, except that Claim 25 is recited in computer-readable medium format. Consequently, it is respectfully submitted that for at least the reasons given above with respect to Claim 12, that Claim 25 is patentable over *Brittenham* and is in condition for allowance.

Claims 2-9, 13, 15-22, and 26 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 2-9, 13, 15-22, and 26 is

therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 2-9, 13, 15-22, and 26 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.
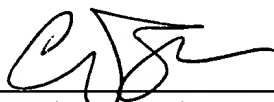
CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for allowance and the issuance of a notice of allowance is respectfully requested. If there are any additional charges, please charge them to Deposit Account No. 50-1302.

The Examiner is invited to contact the undersigned by telephone if the Examiner believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

HICKMAN PALERMO TRUONG & BECKER LLP

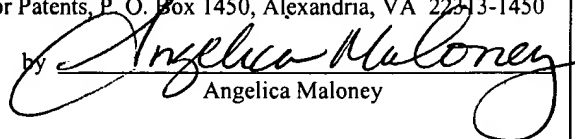Christopher J. Brokaw
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